EO710f

17″ FLAT COLOR MONITOR

REFERENCE MANUAL

PRINCETON®

EO710f

Reference Manual

Table of Contents

FCC Information	1
Safety Information	2
Installation	3
Controls & Functions	4
Preset Timing	8
Input Pin Assignment	8
Technical Specifications	9
Troubleshooting	10

FCC Information

This equipment has been tested and found to comply with limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment can generates, uses, and radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. If this equipment does cause unacceptable interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced Radio/TV technician for help.

Caution:

To comply with the limits for an FCC Class B computing device, always use the shielded signal cord and shielded power cord supplied with this unit.

Caution to the User:

The Federal Communications Commission warns the user that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. if necessary, the user should contact the dealer or an experienced radio/television technician for additional suggestions.

Safety Information

- Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL listed personal computer with similar configuration. Before making the connection, ensure that the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor current rating.

  For 120V applications use only UL listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap.

  For 240V applications use only UL listed detachable power cord with NEMA configuration 6-15P type (tandem blades) plug cap.

- Use only a power source and connection appropriate for the monitor as indicated on the marking label.

- Slots and openings in the cabinet are provided for ventilation; these openings must not be blocked or covered. Never push objects of any kind into cabinet slots or other openings.

- Never insert anything metallic into the monitor openings. Doing so may create a danger of electric shock.

- To avoid electric shock, never touch the inside of the monitor. Only a qualified technician should open the monitor's case.

- Unplug the monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. use a damp, lint-free cloth for cleaning.

- Install the monitor near an outlet that you can reach easily. Disconnect the product by grasping the plug firmly and pulling in from the outlet. Never disconnect it by pulling the cord.

Installation

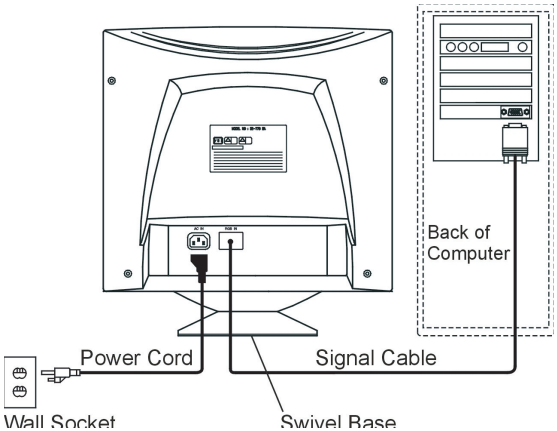
No tools are required to install the EO710f. Simply follow the instructions outlined in the next few pages.

Connect Power Cord

Connect the female end of the power cable to the power input receptacle on the back panel of the EO710f. Then, plug the male end of the power cable into an AC outlet.

Connect Signal Cable

Attach the loose end of the signal cable to the graphics card. Be cautious in inserting the cable properly into the graphics card. If the cable does not seem to fit, it may be facing the wrong direction. Turn the cable over and try to match the shape of the connector with that of the graphics card.



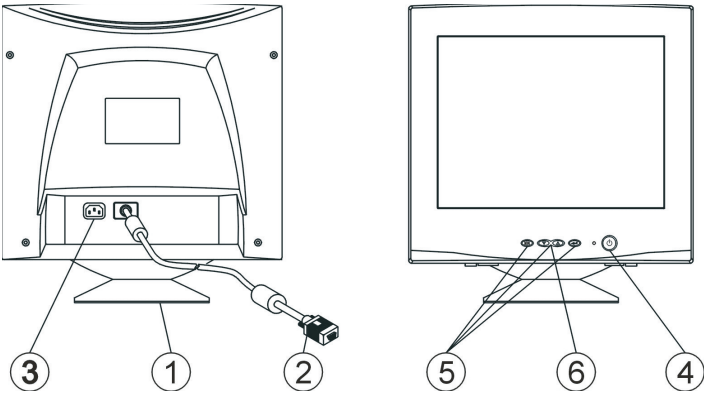
Power On

Switch ON the power to both the EO710f and your computer. There will be a short delay before the display appears.

Adjust the Picture

Adjust the controls, if necessary, to obtain the best display. Instructions on how to use the On-Screen Display controls and the Auto Setup button may be found in the next section, "Controls and Functions."

Controls & Functions



Base of Unit
Assemble the tilt/swivel base onto the bottom of the monitor. Turn the monitor for a comfortable viewing angle within 80 degrees horizontally and 20 degrees vertically.

Signal Cable (VGA Cable)
Connect the end of the signal cable to your graphics card on your computer.

Power Input (AC)
Connect the AC outlet with the supplied power cord as shown on page 3.

CLOSER LOOK

From left to right:

"MENU" button

"UP" button

"DOWN" button

"ENTER" button

Power Button
Press this button to turn the power ON or OFF. There will be a short delay before the display appears.

Control & Functions Buttons
Press "MENU" button to activate OSD menu.
Press "Up/Down" buttons to scroll through the selection.
Press "Enter" button to execute the selection.

Adjustment Buttons
Pressing the "Up/Down" buttons are used to adjust picture adjustment or to highlight a selection.

Controls & Functions

The OSD menu activates when you press the "MENU" button. Use either the "Up" button to move your selection up or "Down" button to move your selection down. After making your selection, Press the "Enter" button and you will be able to move your selection in the sub-menu to the right.

Use either the "Up" or "Down" buttons to select the function you would like to modify. Use the "Enter" button and you will see a status bar indicating adjustment values. Press either the "UP" or "DOWN" to perform the adjustment.

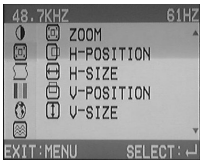
Below are the descriptions of what each function will do:

Contrast
Selecting this function allows you to make adjustments to the luminosity level of the display screen.

Brightness
Selecting this function allows you to make adjustments to the black level of the display screen.

Input Level
Selecting this function allows you to choose input of 0.7V or 1.0V video input voltage levels. (Expert Only)

Reset
Selecting this function will reset the Contrast and Brightness levels, Size, Position, Geometry to factory preset values.



Zoom
Selecting this function allows you to enlarge your image proportionally.

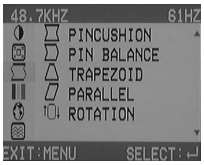
H-Position (Horizontal Position)
Select this function, then use the "UP/DOWN buttons to center the image horizontally on the display screen.

H-Size (Horizontal Size)
Select this function, then use the "UP/DOWN" buttons to increase or decrease the image width to horizontally fill the display screen.

V-Position (Vertical Position)
Select this function, then use the "UP/DOWN" buttons to center the image vertically on the display screen.

V-Size (Vertical Size)
Select this function, then use the "UP/DOWN" buttons to increase or decrease the image height to vertically fill the

Controls & Functions



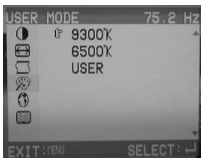
Pincushion (Side-Pin)
Select this function, then use the "UP/DOWN" buttons to straighten the sides of the image by pulling them in opposing directions.

Pin Balance
Select this function, then use the "UP/DOWN" buttons to straighten the sides of the image by pulling them in the coressponding direction.

Trapezoid
Select this function, then use the "UP/DOWN" buttons to even the widths of the top and bottom of the display (pulling the sides in opposing directions).

Parallel
Select this function, then use the "UP/DOWN" buttons to center the top and bottom of the display (pulling the sides in the corresponding direction).

Rotation
Select this function, then use the "UP/DOWN" buttons to rotate the image until the sides of the image are parallel to the edge of the bezel.



9300K
Select this to select your color temperature to 9300° Kelvin. (Cool White Point)

6500K
Select this to select your color temperature to 6500° Kelvin. (Warm White Point)

User (custom color temperature settings)
Select this to customize your white point settings. You will be given the Red, Green, and Blue adjustments. (Changes to the "User" is not recommended).

Controls & Functions

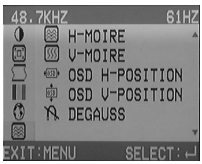
English
Selecting this will change your OSD to English.

Deutsch
Selecting this will change your OSD to German.

Francais
Selecting this will change your OSD to French.

Espanol
Selecting this will change your OSD to Spanish.

Italic
Selecting this will change your OSD to Italian.



H-Moire (Horizontal Moire)
Select this function, then use the "UP/DOWN" buttons to decrease the moire, a Finger Print Pattern that causes some dithered colors to appear uneven.

V-Moire (Vertical Moire)
Select this function, then use the "UP/DOWN" buttons to decrease the moire, an interference pattern that causes some dithered colors to "vertical shimmer" or appear uneven.

OSD H-Position
Select this function, then use the "UP/DOWN" buttons to move the OSD menu horizontally.

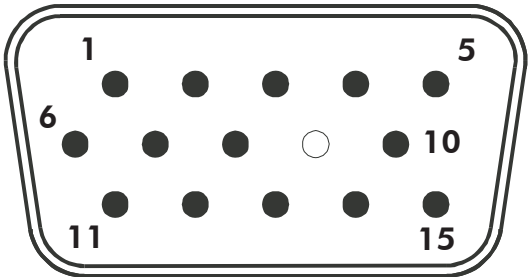
OSD V-Position
Select this function, then use the "UP/DOWN" buttons to move the OSD menu vertically.

Degauss
Selecting this function will demagnetize the CRT when the display becomes discolored or washed out in appearance. The monitor will automatically degauss on startup if the monitor has been shut-off.

Preset Timing

Resolution	H. Frequency	V. Frequency	SYNC. Polarity
720 x 400	31.47KHz	70Hz	- / +
640 x 480	31.47KHz	60Hz	- / -
640 x 480	37.50KHz	75Hz	- / -
640 x 480	43.30KHz	85Hz	- / -
800 x 600	46.88KHz	75Hz	+ / +
800 x 600	53.67KHz	85Hz	+ / +
1024 x 768	60.02KHz	75Hz	+ / +
1024 x 768	68.68KHz	85Hz	+ / +
1280 x 1024	63.97KHz	60Hz	+ / +

Input Pin Assignment



Pin	Signal	Pin	Signal
1.	Red Video	9.	No Pin
2.	Green Video	10.	Ground
3.	Blue Video	11.	Ground
4.	Ground	12.	SDA (DDC1/2B Data)
5.	Ground	13.	Horizontal Sync
6.	Red Video Return	14.	Vertical Sync
7.	Green Video Return	15.	SCL (DDC1/2B Clock)
8.	Blue Video Return		

Technical Specifications

Model	EO710f
CRT Size	17" Diagonal (16" Viewable)
Deflection Angel	90 Degrees
Dot Pitch	0.25mm
Screen Type	Shadow Mask, Anti-Static, Non-Glare
Graphics Standards Compatibility	NON-INTERLACED 1280 x 1024 (SXGA), 1024 x 768 (XGA), 800 x 600 (SVGA), 640 x 480 (VGA) 1280 x 1024 @ 60Hz
Video Bandwidth	110Mhz
Horizontal Sync. Vertical Sync.	30 ~ 70KHz 50 ~ 160Hz
Input Video Input Sync.	RGB Analog 0.7Vp-p / 75 Ohms Positive TTL Separate/Composite (+/+)
Display Colors	Unlimited
Display Area	310mm x 235mm (Default) 325mm x 240mm (Overscan)
Power Source Power Consumption Active Off	90-264Vac 90W Less than 5W
Input Connector	15pin Mini D-SUB
Dimensions	425mm / 16.75in. (D) x 408mm / 16.07in. (W) x 427mm / 16.82in. (H) with Stand
Weight	Net Weight: 10.0kg (35.27lbs), Gross Weight: 18.5kg (40.79lbs)
User Controls	Power Switch, Brightness, Contrast, Input Level, H-size, H-position, V-size, V-position, Pincushion, Trapezoid, Parallel, Rotation, 9300K, 6500K, User Color, Zoom, Pin-Balance, Corner, Language, H-moire, V-moire, OSD V-position, OSD H-position, Degauss, Reset.
Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	10% to 80%
Nordic Standard Plug & Play	MPR II DDC1/2B

Troubleshooting

The monitor is switched ON, but the Power LED indicator is not lit and there is no display on the screen.

Check all the power connections and make sure they are secure. If the monitor is plugged into a surge protector, make sure that the surge protector is switched on.

Why do I hear a "humming" sound when I first switch on the monitor?

The sound you hear indicates that the degauss function is activated. Every time the monitor is switched on, it will go through the degaussing process which helps eliminate any purity problems.

How do I change the resolution the monitor displays?

The frequency and resolution displayed on a monitor is controlled by the video card and operating system. The monitor simply responds to the signal it receives from the video card and is not able to change the resolution on its own. Most video card manufacturers provide software drivers and utilities that allow you to use different resolutions for different applications. Please consult your video card manual or dealer for more information.

The monitor is "plug and play," why do I still need to run the graphics card utility to make adjustments on refresh rate in different resolutions?

In order to fully utilize the plug and play feature, the computer must be equipped with a plug and play (DDC2B) video card and running with a Plug and Play capable operating system (i.e., Windows® 98) or a separate utility program that enables the plug and play function automatically.

Troubleshooting

How do I change the frequency or refresh rate the monitor uses?

The refresh rate is controlled by the video card. In your "Display Properties," press the "Advanced" button. Select the Adapters tab. There should be a list of refresh rates.

Why do the characters in the corner of the screen look fuzzier than the center?

One of the limitations of a CRT screen is that the focus is impossible to be uniform across the entire area. In general, a monitor is adjusted so that the focus is best in an area around the center, in which case the overall focus is optimized. However, the image in the corner should always be readable.

I see what appears to be a second image or "Ghost" on the screen. How can I correct this?

The ghosting effect may be due to a reflection in the signal. This usually occurs if an extension signal cable is installed or if the signal cable is not fastened to the back of the video card.

I turned on both the monitor and computer, but there is still no display on my monitor. How can I tell if the monitor is defective?

The monitor has a self test screen to troubleshoot this kind of problem. You can activate the self test screen by turning off the monitor, detaching the signal cable from the computer and then turning the monitor back on (with the signal cable unattached). If you can see the self test screen, the monitor is functioning properly.

© 2001 Princeton Graphic Systems, Inc. All rights reserved. This manual may not be copied in whole or in part without the written consent of Princeton Graphic Systems. Princeton Graphic Systems is not responsible for printing or clerical errors. Product specifications is subject to change without notice. Windows® is a registered trademarks of Microsoft Corporation. Apple® and Macintosh™ is a registered trademark of Apple Computer, Inc. Sun® SPARCStation™ is a registered trademark of Sun Microsystems Inc. ENERGY STAR® is U.S. registered mark. As an ENERGY STAR® Partner, Princeton Graphic Systems, has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

PRINCETON

Princeton Graphic Systems
2801 South Yale Street
Santa Ana, CA 92704
(714) 751-8405
(714) 751-5736 fax
www.princetongraphics.com

Copyright © 2001 Princeton Graphic Systems, Inc.

Ref No.: 00300000295
Part No.: 11/14EO1701A04